# **Bouncing back after the crisis?**





# "An economic recession next week is simply not possible because my diary is full busy"

**Henry Kissinger** 



## **Executive Summary**

- This economic cycle is not of financial nature only: it is a recession of the "real economy"
- During the past 15 years, corporate management has given the priority to short-term profitability thru globalization instead of long-term value creation thru innovation and "quality employment"
- Such a strategy has generated a liquidity abundance and an industrial "pauperization"
- This cycle could last 40 months and the rescue plan will not play a strong role in the return to growth
- A solid and large recovery depends only on a new and strong wave of innovation all across the board: electronic components will be "as usual" the core of this new age ...



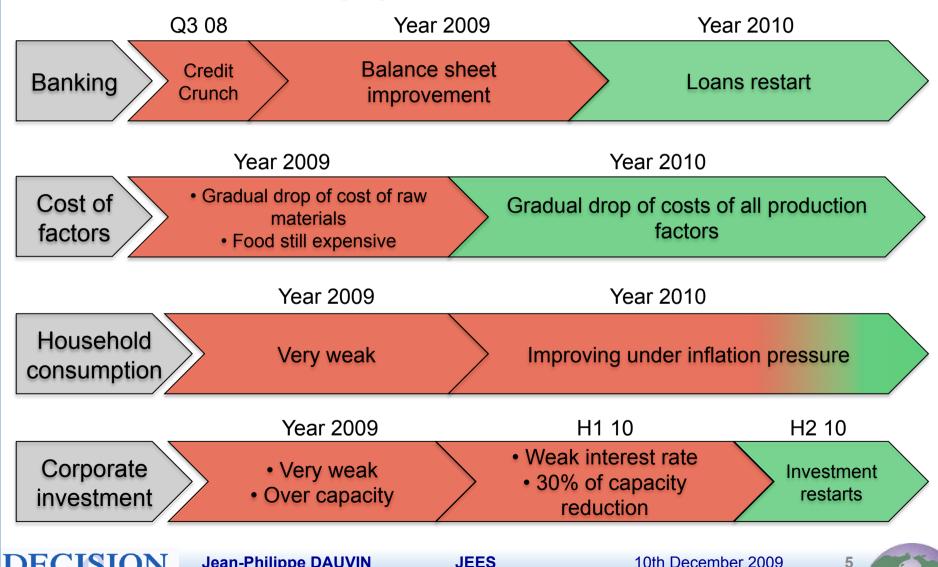
# ... However semiconductors and other components are today at a foothill of a strong growth over the next two years,

### driven by:

- Technical factors in 2010
- Demand factors in 2011



# Recovery process: bottom mid 2009, strong growth mid 2011





#### The risks

- Current "favorable" indicators are not structural improvements
- Massive unemployment starting Q1 2010
- Protectionist measures especially in Europe
- \$ currency crisis due to massive Chinese treasury bonds selling
- New wave of speculation on raw materials
- "Deglobalization"
- New behavior of households consumption bolstering low cost and low profit stuff ...
- ... And a H1N1 world pandemic which could negatively impact by 2% the GDP: please wash your hands before applause this presentation!

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- In absolute value: 2012 = 2007 Best case!
- The growth of the next decade should be far below the past one!



Real Term growth rate % Y/Y

# Macro Forecast: GDP growth

	2007	2008	2009	2010	2011	2009 Share of World (Major areas)
NAFTA	2.3	0.5	-3.1	1.8	2	25%
South America	6.4	5.1	-1.5	1.5	1.5	6%
Japan	2.3	-1	-5	2	2	7%
Asia & China	10	7	6	7	8	20%
India	9	7	6	6	7	7%
Europe	3	1	-4	1	1.5	25%
Russia	8	0	-5	-2	1	6%
World Source : BIPE	5	3	-1.5	2.5	3.0	100%



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# No resilience for electronic industry?

- During the past economic cycles, the electronic industry was still growing demonstrating its resilience to crisis:
  - Low equipment ratio
  - Emerging countries strong demand
  - Continuous flow of component innovation generating virtuous market push-pull effect.
- No resilience this time:
  - This is a final demand crisis
  - Weak innovation in components
  - Total electronic industry to decrease by 7% in 2009



# The drop in final demand

#### **Electronic industry production**

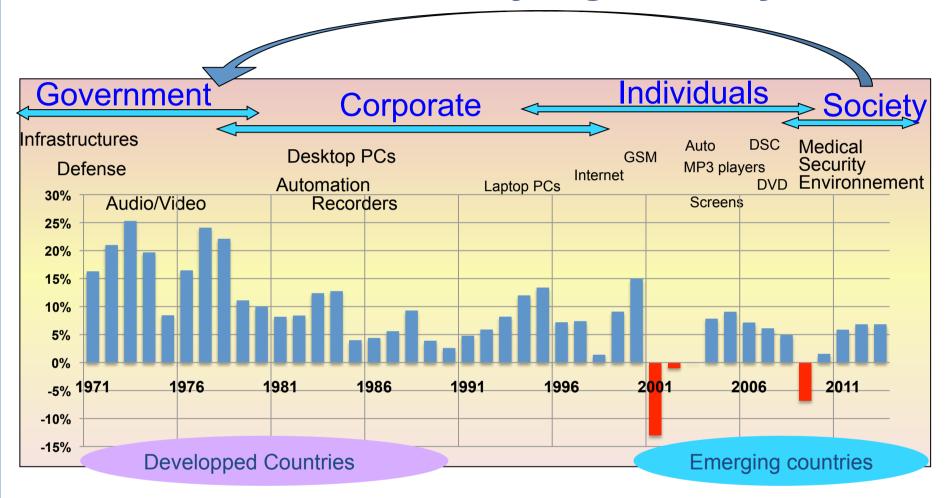
% growth Y/Y	2009	2010	2011	08/13 CAGR
Audio-Video	-7	0.4	4.3	2.2
Computer	-10	1.5	5.5	2
Telecom: • Mobile • Infrastructure	-11 -5	5 0.2	6.5 6.3	2 3
Automotive	-18	8	10	2.7
Aerospace/ Defense	4.5	2.6	0.5	3.4
Industrial	-3.7	-0.1	8.6	4.5
Total	-7	1.5	6	2.7

% growth Y/Y	2009	2010	2011	08/13 CAGR
Europe	-12	0.3	3.3	-0.4
NAFTA	-7.3	-4.5	0.3	-2
Asia/Pac	-4.6	5	9	5.8
China	6.4	6.4	10.2	7
Japan	-9	-2.4	3.4	0.1
World	-7	1.5	6	2.7

Source : DECISION



# The electronic industry's growth cycles



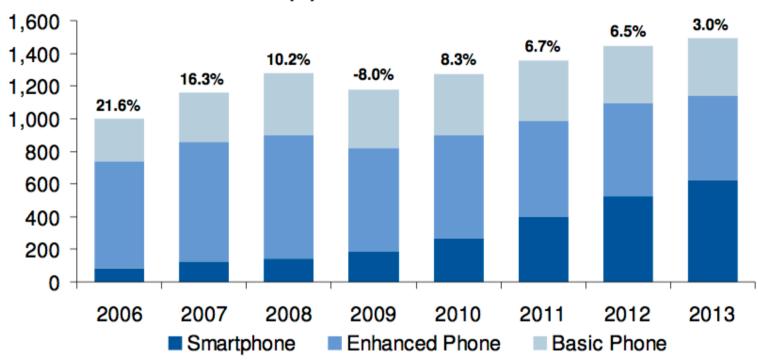
#### From low tech & high prices to high tech & low prices devices

Source : DECISION



# Mobile phone market

#### Millions of Units and Growth (%)



Source: Gartner



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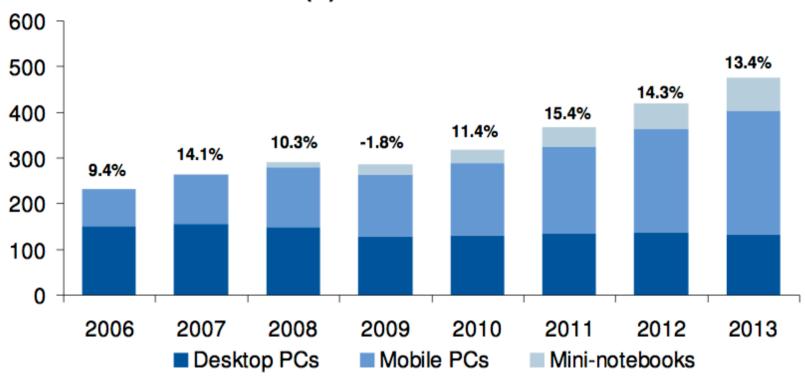
#### **PC** market

#### Millions of Units and Growth (%)

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Source : Gartner



# Electronics drivers some examples 2008 – 2013 CAGR %

#### The Losers The Winners -100 **Video Taper Recorders** 237 **OLED TVs CRT TVs** -36 54 Pocket PCs **DVD Players** -11 **Digital Picture Frames** -6 28 LED Lightning **PC Flatscreen Monitors ABS** -5 22 Solar Panels **Data Processing Mainframes Efficient Lightning** Scanners **Set Top Boxes** Desktop PCs -2 **Telecom Broadband infrastructures** Camcorders -2 **Space** Medical Hi-Fi / Radio -2 Mass-market **Professional** products products Source: DECISION



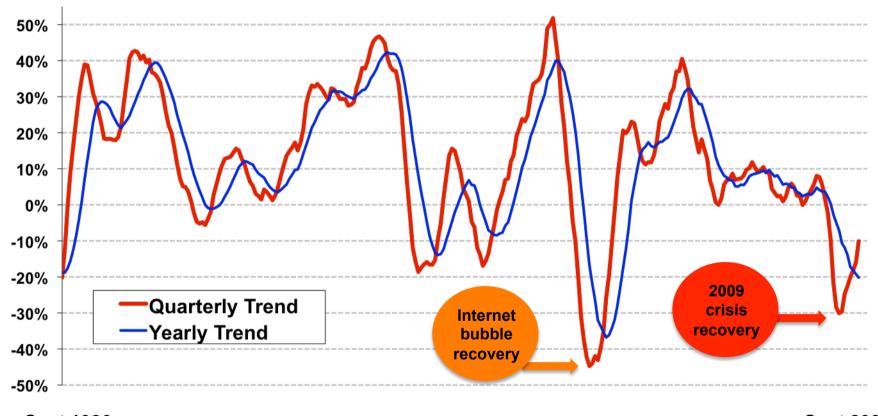
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# Semiconductor Market cycles



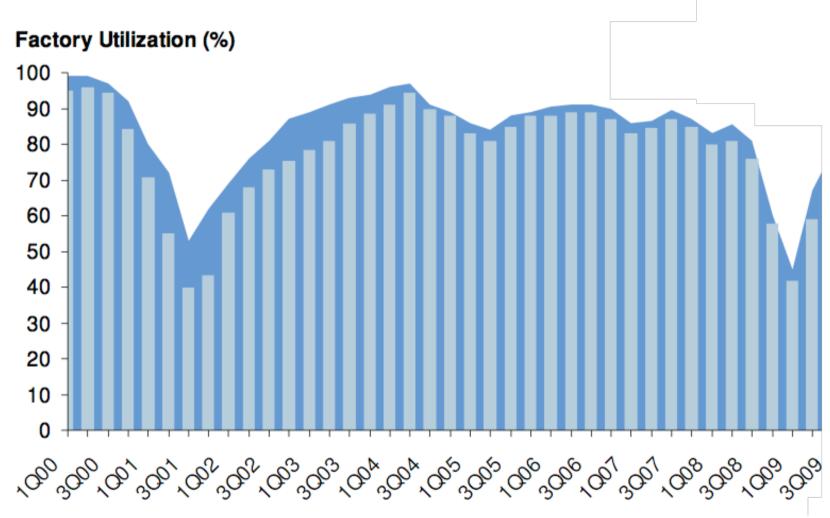
**Sept 1986 Sept 2009** 

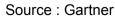
Source: WSTS



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# Improving factory utilization Semiconductor







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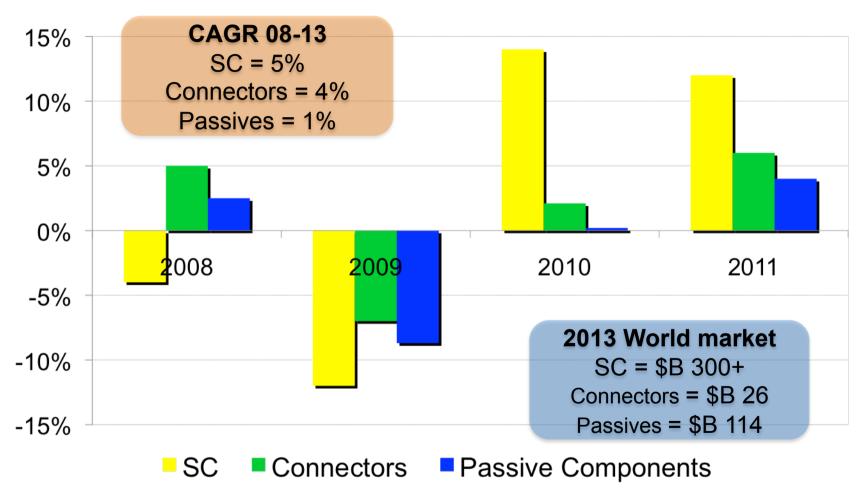
# Ingredients for a strong recovery

- Large industry "house keeping"
  - Inventory at 2003 historical lowest level
  - Strong CAPEX reduction leading to a CAPEX-to-Sales ratio at 9% Vs. 20% past average
  - Capacity reduction by 20%
- Strong and rapid industrial restructuring
  - 50 SC fabs closed
  - 10% workforce reduction
  - Some significant M&A
- New volume applications with higher SC content
  - Maxi phones
  - Mini PCs

Industry has achieved the fastest and the largest restructuring process in its history



# **Electronic component market forecast**



Source: DECISION



# Innovation in electronic component drives economic progress

#### **Electronic component pervasion in equipment**

1965: 6% 2005: 25% 1975: 12% 1985: 16% 2013: 30%

- MAIN FRAME
- **DEFENSE**
- **MID-FRAME** AUTOMATION
- **PC MOTHERBOARD**
- COMMUNICATION
- MOBILITY
- **MULTIMEDIA**
- **MEDICAL & CARE**
- **ENERGY SAVING**
- SAFETY, SECURITY

**INFRASTRUCTURE PRODUCTIVITY** 

**CORPORATION PRODUCTIVITY** 

**INDIVIDUAL PRODUCTIVITY** 

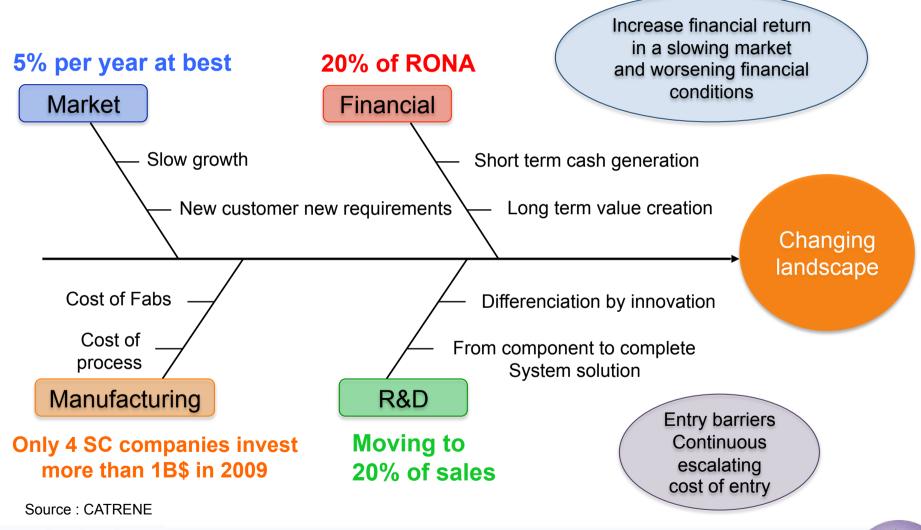
**SOCIETAL NEEDS** 

From commodity components to integrated platforms

Source: ST/DECISION



### Anyway to go to 2013 will not be a piece of cake!





# **Changing Business Model**

Old Paradigm	New Paradigm	
Strong growth	Slow growth	
World mass market	Regional mass-professional market	
Few identified players	Many partners including competitors or services company & customers	
Differenciation thru manufacturing science and cost performance	Differenciation thru heavy R&D effort and global innovation	
Recruitment only among engineers	Recruitment also from commercial and marketing school	
Monolithic company structure to reach Critical mass	Flexible company structure to achieve strategic agility	
Deliver value to shareholders thru PRIORITY TO THE FINANCE	Deliver value to society thru PRIORITY TO INNOVATION IN PRODUCT & SERVICES	



#### Conclusion

- « Recovery is around the corner »: next 2 years are good.
- Beyond 2013, electronic industries will restart a new long-term growth period.
- Innovation will be again at the core of this new growth.



# The Stone Age did not disappear because of a lack of stone but because of innovation!

